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PATENT SPECIFICATION

239,215

Convention Date (France): Aug. 26, 1924.

Application Date (in United Kingdom): Aug. 26, 1925. No. 21,390/25.

Complete Accepted: April 22, 1926.



COMPLETE SPECIFICATION.

Improvements in or relating to Siphons for Gaseous Liquids.

I, FRANCIS ALBERT JOSEPH PONCET, of 8, rue Dufaut, Gentilly, Seine, late of boulevard Pouiatowsky, Paris, France, French citizen, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to siphons for gaseous liquids and especially to methods of fixing siphon heads to bottles, decanters, and the like containers.

Arrangements have heretofore been proposed for fixing siphon heads by means of a cylindrical clamp in one or more pieces which is applied at one part upon a shoulder of the siphon head and at another part under a ring, bulge or the like formed upon the neck of the bottle or container, a rubber or the like joint ring being placed between the siphon head and the upper edge of the container. It has also been proposed to maintain the clamp in position by means of an exterior ring or collar which is adapted to slide upon the clamp after the latter is placed in position.

The object of the present invention is to provide an improvement of this method of fixing siphon heads, the important feature of the improvement consisting in providing a bayonet mounting of the collar upon the clamp proper, enabling the said collar to be secured against movement relatively to the clamp, and consequently also making the fixing arrangement more secure, in spite of wear and tear upon the clamp and its collar.

All the different forms of the improved siphon clamp which are hereinafter referred to are of sheet metal and can be cut and stamped by the usual methods and means.

The clamps when once cut and stamped are polished, coated with nickel, or tinned, and marked with the name of

the customer by the processes at present in use.

Referring to the accompanying drawings, the clamp shown in Fig. 4 is made of a single piece, of which Fig. 4 is a vertical section, Fig. 2 the top plan, and Fig. 6 the bottom plan.

When mounting the head on glass, the collar *a* is first mounted in position as shown in Figs. 1, 9 and 10. This collar *a* is a tube of a thickness of about one millimetre edged with an enlargement and is formed with a bayonet slot *u* adapted to engage over a pin on the clamp. The tube of glass *c* is provided with a rubber joint ring *b* (Figs. 9 and 10) and is placed upon the decanter; the siphon head is then placed upon the decanter and is fitted by itself in position with the known press for mounting such heads upon decanters, and pressure is brought to bear upon the head and the clamp, which has previously been mounted, as shown in Figs. 9 and 10 to sufficiently grip the rubber ring *b*. The claws *g* (Fig. 3) are now brought down under the ring of the bottle or decanter as shown at *d* in Fig. 9, the claws of the clamp are tightly pressed with special pliers to apply them powerfully upon the neck of the bottle, and the collar *c* (Figs. 9 and 10) is raised from its lower to its upper position in which it is locked by the bayonet joint in order to maintain the claws in their final position. The mounting of the head upon the decanter is then finished.

This form of clamp is only adapted for heads the nozzle of which is lower than the point where the clamp is fastened. The clamp shown in Fig. 4 is not the same as that which is shown in position in Figs. 9 and 10; but as it is applied to the same kind of head, Figs. 9 and 10 serve for illustrating the mounting of such a clamp as that shown in Fig. 4.

Figs. 5, 7 and 8 represent a clamp

cut and stamped to a form of which Fig. 7 is a section in front of the branches, Fig. 5 is a bottom plan and Fig. 3 is a profile section. The branches *b* of the clamp are fastened in the holes *i* (Fig. 10). This kind of clamp is mounted as previously described and is adapted for heads the nozzle of which is lower than the point where the clamp is fastened, and is mounted upon bottles such as those shown in Fig. 10. The branches *b* (Fig. 7) are maintained in fastened position in the holes *i*, *i* (Fig. 10) by a collar such as shown at *a* (Fig. 10), when in its raised position in which it is locked, as before, by the bayonet joint.

The best form of clamp, and which can be mounted upon all kinds of heads and upon all kinds of decanters or bottles, is that shown in the final position of the siphon head upon glass in Figs. 1, 9, and 10. This clamp is composed of three pieces, namely, two semi-cylindrical bushes *m*, *m* (Fig. 12), and the collar *a*.

This clamp may have different dimensions and forms according to the pattern of head and the kind of bottle or decanter upon which the said head is to be fixed. Fig. 1 shows a head of which the body *j* is of glass or porcelain and the cap *k* of metal, as is also the lever *l*. Upon this kind of head the clamp is fastened below the nozzle and the clamp is mounted by means of a press as previously described. Fig. 1 shows a section of the socket of the head, of the straight neck of the decanter, and of all the parts concerned in the mounting of the head upon glass by means of the clamp; further, the collar *a* is shown placed upon the neck of the decanter before being adjusted upon the bushes *m* which are previously fixed. The collar *a* is maintained in its final position by the bayonet slot *n* (Fig. 1) which is hooked to a pin fixed upon a bush *m*.

It is important to remark that the socket *o* (Fig. 9) is reduced to its most economical form (economy of metal and handling) compared with the head of tin of known form. Fig. 9 shows a section of the mounting in its final and complete form, of the head upon glass, and also shows the collar *a* in elevation before being fixed in its final position. Fig. 11 is a bottom plan of the clamp alone, the two bushes being connected (without the collar). Fig. 13 is a top plan of the clamp and its collar in assembled position.

Fig. 10 represents a section of a head of tin (nozzle turned forward) of which the small socket *o* is fitted upon the end of the ring of the bottle, this bottle being

of the kind having a stopper of porcelain. The said section shows all the parts for assembling the head upon the bottle, and also the collar *a* in elevation before being fixed in its final position. Fig. 12 is a top plan of the two bushes *m*, *m* alone of Fig. 10 in assembled position. Fig. 14 is a top plan of the complete clamp shown in Fig. 10.

In all the different forms of the clamp above described it is necessary to arrange that the interior diameter of the bushes, or of the clamp when it is in one piece, is the same as the exterior diameter of the head and of the ring of the bottle or decanter; these three diameters are of the same dimensions.

The interior diameter of the collar *a* should be adjusted to have a tight fit upon the exterior diameter of the bushes.

The length between the upper and lower edges *e*, *e* of the bushes (Fig. 1) should be the sum of the following dimensions: (1) height of the socket of the head; (2) thickness of the joint ring *b* when compressed; (3) height of the ring of the decanter or bottle on which the parts are to be assembled.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

1. Improved method of fixing siphon heads on bottles, decanters and the like containers in which a cylindrical clamp, which may be in one or more pieces, is applied at one end upon a shoulder of the siphon head and at the other end under a ring, bulge, or the like formed upon the neck of the bottle or container, a collar being fitted externally upon the clamp for maintaining it in position and being secured to the clamp by means of a bayonet joint.

2. Method of fixing siphon heads according to Claim 1, in which the clamp is in a single cylindrical piece and is split along its generating lines up to a certain distance, in such a manner as to form strips or claws the ends of which can be bent back to engage under the ring or bulge of the neck of the container, or to enter holes provided in the said container.

3. Method of fixing siphon heads according to Claims 1 and 2, substantially as described with reference to the accompanying drawings.

Dated this 26th day of August, 1925.  
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The interior diameter of the collar *a* should be adjusted to have a tight fit upon the exterior diameter of the bushes.

The length between the upper and lower edges *c, c* of the bushes (Fig. 1) should be the sum of the following dimensions: (1) height of the socket of the head; (2) thickness of the joint ring *b* when compressed; (3) height of the ring of the decanter or bottle on which the parts are to be assembled.

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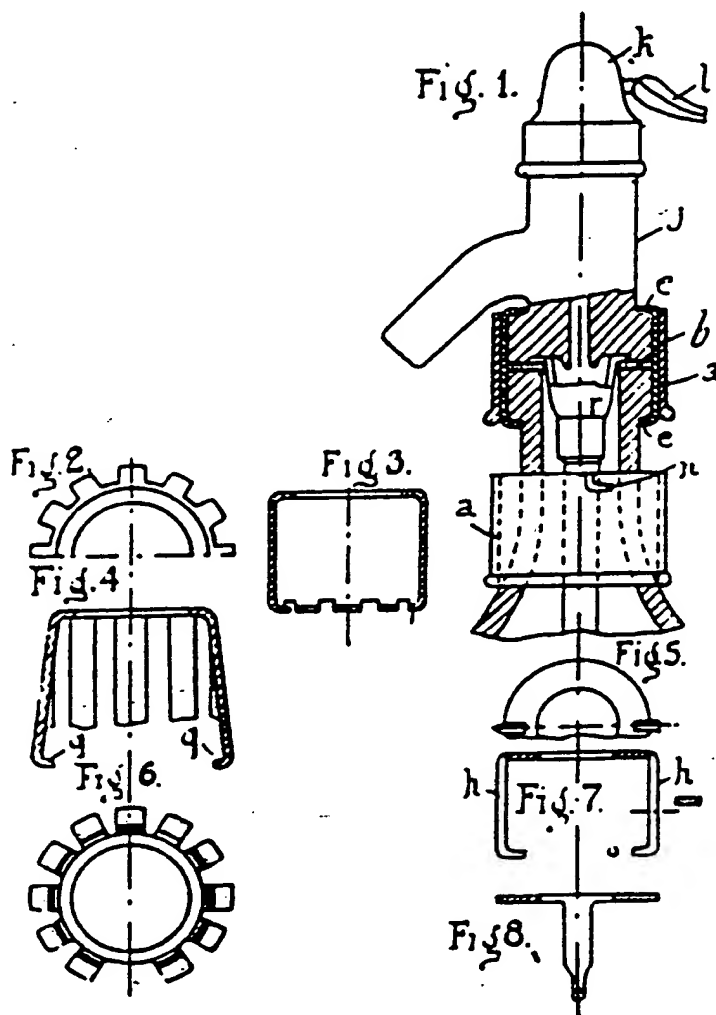
3. Method of fixing siphon heads according to Claims 1 and 2, substantially as described with reference to the accompanying drawings.

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[This Drawing is a reproduction of the Original on a reduced scale.]



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1 SHEET

Fig 9.

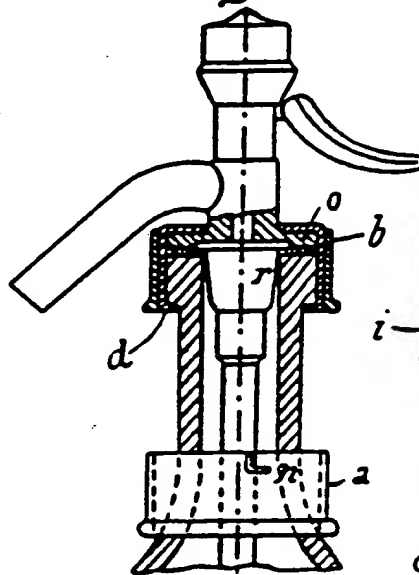


Fig 10.

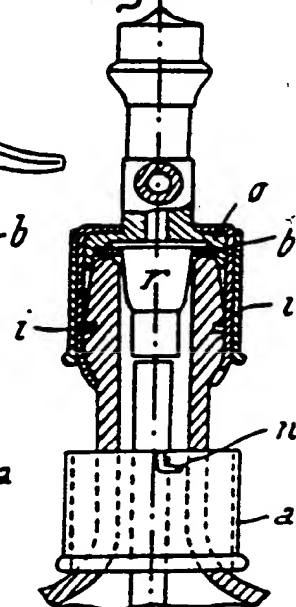


Fig 11.

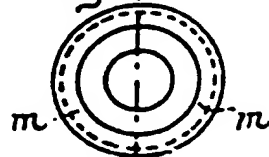


Fig 12.

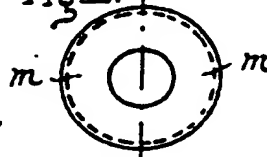


Fig 13.

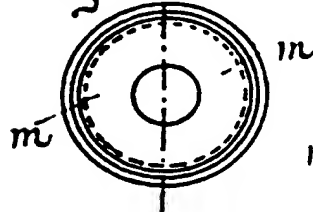


Fig 14.

